CLAIMS

What is claimed is:

1. A power wheelchair comprising:

a frame;

a pair of drive wheels, each wheel having an axis of rotation;

two drive assemblies, each including a motor and a transmission for driving a respective drive wheel;

a motor support bracket attached to each drive assembly, each motor support bracket being pivotally attached to the frame such that the bracket and drive assembly combination can pivot with respect to the frame, the drive assembly being attached to the motor support bracket such that the drive assembly extends upward and rearward from the bracket;

a spring suspension assembly attached to the motor support bracket forward of the attachment of the drive assembly, the spring suspension assembly being attached to the frame.

at least one ground-engaging idler wheel connected to the frame in front of said drive wheels; and

at least one anti-tip wheel positioned above ground in a normal resting state of the wheelchair and connected to one drive assembly such that pivoting of the drive assembly produces movement of the anti-tip wheel toward or away form the ground

2. A power wheelchair according to claim 1, further comprising a second anti-tip wheel, each anti-tip wheel being connected to respective drive assembly.

3. A power wheelchair according to claim 2, wherein said frame includes an upper covering shell.

4. A power wheelchair according to claim 3, wherein the frame supports a seat.

5. A power wheelchair according to claim 3, wherein the frame includes at least two longitudinal beams, each longitudinal beam having an upright support attached to it, and a crossbar connecting each upright support, and wherein the spring suspension assembly includes at least one coil spring disposed between each upright support and the motor support bracket.

6. A power wheelchair according to claim 3, wherein the frame includes at least two longitudinal beams, each longitudinal beam having an upright support attached to it, and a crossbar connecting each upright support, and wherein the spring suspension assembly includes two spring-strut assemblies, each including a strut and an upper and lower coil spring, the lower end of the strut being attached to the motor support bracket, the upright support having an upright bracket assembly through which the strut extends, and wherein the upper coil spring is located above the upright bracket assembly and the lower spring is located between the upright bracket assembly and the motor support bracket.

7. A power wheelchair comprising:

a frame;

a pair of ground-contacting drive wheels disposed on opposite sides of the frame;

a pair of drive assemblies, each including a motor and a transmission, each drive assembly engaged with and adapted to drive a respective drive wheel;

a pair of motor support brackets, one on each side of the frame and pivotally attached to the frame, one drive assembly being mounted to each motor support bracket such that the motor of the drive assembly extends upward and rearward from the bracket;

a pair of springs, each spring being disposed between the frame and an associated motor support bracket so as to counter-act pivoting of the motor support bracket;

at least one ground-contacting idler wheel disposed at the front of the frame; and

at least one anti-tip idler wheel mounted to the rear of the frame, the

anti-tip idler wheel being positioned off the ground when the wheelchair is resting on level ground, the anti-tip idler wheel being attached to one drive assembly/motor support bracket combination such that the anti-tip wheel rotates in the same direction about the pivot as the drive assembly/motor support bracket combination.

8. A power wheelchair according to claim 7, wherein the at least one anti-tip idler wheel is connected to the motor support bracket.

9. A power wheelchair according to claim 7, wherein the at least one anti-tip idler wheel is connected to the drive assembly.

10. A power wheelchair according to claim 7, wherein there are two anti-tip idler wheels, one of the anti-tip idler wheels being mounted on either side of said frame and attached to a respective drive assembly/motor support bracket combination.

11. A power wheelchair according to claim 7, wherein the drive assemblies are attached to the motor support bracket forward of the pivotal attachment to the frame.

12. A power wheelchair according to claim 7, further comprising a second pair of springs, the first pair of springs counter-act pivoting of the motor support bracket in a first direction and the second pair of springs counter-acting pivoting of the motor support bracket in a second, opposite direction.

13. A power wheelchair according to claim 7, wherein said frame includes an upper covering shell.

14. A power wheelchair according to claim 7, wherein there are two front idler wheels, one proximate to each lateral side of the frame.

15. A power wheelchair according to claim 7, wherein the frame includes at least two longitudinal beams, each longitudinal beam having an upright support attached to it, and a crossbar connecting each upright support, and wherein the springs are coil springs disposed between each upright support and the motor support bracket.

16. The power wheelchair of claim 7, wherein the frame includes at least two longitudinal beams, each longitudinal beam having an upright support attached to it, and a crossbar connecting each upright support, and wherein there are two sets of springs, each set of springs including a strut, the lower end of the strut being attached to the motor support bracket, each upright support having an upright bracket assembly through which the strut extends, and wherein one of the springs in each set is located above the upright bracket assembly and the other spring is located between the upright bracket assembly and the motor support bracket.